

ABSTRACT

5 In a method for joining plastic structural component parts by laser
radiation, it is the object of the invention to prevent impairment of the surface
quality by the falling in of material of the quality surface in thin-walled plastic
structural component parts when the latter are connected to another part. A first
thin-walled plastic structural component part having a quality surface is formed so as
to be absorbent for the laser radiation and is welded by the transmission radiation
10 method on a side located opposite from the quality surface to a second plastic
structural component part which is transparent to the laser radiation. The transparent
plastic structural component part is heated beforehand in order to reduce the
temperature gradient between the plastic structural component parts when joining, so
that a faster melting of the transparent plastic structural component part is carried out
15 by heat conduction during joining, and a thermal expansion in the absorbing plastic
structural component part in the direction of the quality surface is limited.